

Old English Herbals, 1525-1640.

By H. M. BARLOW.

THE first herbal printed in England was a small quarto volume published anonymously by the London printer, Richard Banckes, in 1525. It is generally referred to as "Banckes' Herbal," and is the first of a series of small books, chiefly in black letter, without illustrations, which appeared during the next thirty years. This series may be distinguished from the larger and more important books with woodcut figures such as the "Grete Herball" and the herbals of Lyte and Gerard, which were based on works printed on the Continent. They came from the presses of various London printers, and were similar in size and external appearance. Some had titles closely resembling one another, and others carried the names of Macer and Askham, and the initials "W. C.," which have been supposed by bibliographers to represent the names Walter Cary and William Copland. Under all these names, therefore, these books may be found in various bibliographies such as Ames, Hazlitt, and others, and also in the printed catalogues of libraries and booksellers. Those having the appearance of anonymous works are generally grouped under the heading "Herbal."

It is somewhat strange that these quaint and interesting old volumes have not been bibliographically compared and described. In the history of the herbal they are thought to be of little or no importance, the attention of those interested in this fascinating literature being centred upon the series of larger works with woodcut illustrations. This is one reason why little consideration has been given to this series of books. Another reason is probably to be found in the obscurity concerning their authorship, the various writers to whom they have been ascribed, and whose names have already been quoted, having nothing whatever to do with the writing of them. It will be seen later that they are all various editions of the herbal printed by Banckes in 1525, but with trifling modifications, additions, or omissions. "Banckes' Herbal," on account of its numerous editions, enjoyed a popularity which was not shared by any other English herbal, even to a third of its degree. But this popularity depended, doubtless, on the price at which these editions were sold. Being small in size as well as in contents, and without illustrations, it would be very much cheaper than its rival folio work,

profusely illustrated with woodcuts, the "Grete Herball," which passed through four editions, the first in 1526, and the last in 1561.

Moreover, "Banckes' Herball" is extremely rare. I have consulted the catalogues of many important libraries, but of the majority of the various editions I have been unable to trace more than a single copy. On the other hand, the larger English herbals of Turner, Gerard, and Parkinson, are frequently to be found, not only in British libraries, but also in the catalogues of second-hand booksellers. Pulteney, in his "Sketches of the Progress of Botany in England," 1790, the standard work of its time, only mentions three issues, one bearing the initials "W. C.," printed by Copland, the second the name of Macer, and the third that of Askham, whom he describes as the author. And his remarks clearly indicate that two of these were not actually examined by him, but only had their titles quoted, probably from Ames. Again, in 1854, Meyer's important work, "Geschichte der Botanik," which is still the standard book on its subject, only mentions the editions quoted by Pulteney. Of that bearing Askham's name, Meyer writes: "Es scheint mehr Astrologie als Botanik zu enthalten," a statement which, together with another that "nur eine neue Auflage desselben ist wahrscheinlich," shows that he himself did not have access to the works. Ames is the chief authority to whom one would naturally turn for descriptions. In his "Typographical Antiquities" nine editions are recorded. In the present paper, particulars of no less than seventeen will be found, fourteen of which are actually in existence, and have been described directly from the books themselves. The descriptions of the other three are quoted from Ames.

The following titles and colophons are arranged in chronological order according to their printers, and approximate dates are assigned to a few of the undated copies. The first is that printed by Richard Banckes.

Title.—¶ Here begynnyth a new mater / the whiche sheweth and | treateth of y^e vertues & propriytes of her- | bes / the whiche is called | an Herball | ∴ | ¶ Cum gratia & priuilegio | a rege indulto. | [*Woodcut of plant with three conventional pieces or borders.*]

Colophon.—¶ Imprynted by me Rycharde Banckes / dwellynge in | Lōdō / a lytel fro y^e Stockes in y^e Pultry / y^e xxv. day of | Marche. The yere of our Lorde. M.CCCCC. & XXV. Black Letter, 4to, A—1 in fours.

In the following year, 1526, Banckes issued another edition. The wording of both titles, with the exception of slight variations in the

spelling, is found to be identical. Similar variations are noticed in the two colophons. As regards the text of the later edition, I am unable to say whether the same characteristics prevail, as I have not examined the copy personally, and am indebted to the kindness of Mr. H. G. Aldis, M.A., of the Cambridge University Library, where the work is to be found, for supplying the title and colophon.

Title.—**C**. Here begynneth a newe marer / y^e whiche sheweth and | treateth of the vertues & propertes of her- | bes / the whiche is callyd | an Herball. | ∴ | **C**. Cam priuilegio. | [*Border pieces and other ornaments in lower part of page.*]

Colophon.—**C**. Imprynted by me Rycharde Banckes / dwellynge in | Lōdō / a lytell fro y^e Stockes in y^e Pultry / ye. xxv. daye of June. The yere of our Lorde, M.CCCCC. & XXVI. Black letter, 4to, A—1⁴.

The work contains 206 chapters, each containing an account of a herb, and arranged in the order of the alphabet. Concerning its authorship, nothing definite is known. According to the late Dr. Payne, it had “no connection with any herbal printed on the Continent, and was probably an abridgment of some mediæval English manuscript on herbs.” Manuscripts of this kind were numerous in England during the fourteenth and fifteenth centuries, and some are still preserved in a few of the more important libraries. This subject will be referred to later in the remarks concerning Wyer’s editions.

The next in order of date was probably that printed by Robert Redman.

Title.— : A boke of | the propertyes | of herbes the | whiche is | called an | Herbal | ✠ | [*Small woodcut.*]

Colophon.—Imprynted at | London in Fletestrete at | the sygne of the George by | me Robert Red- | man ∴ | ✠ | [*Printer’s mark.*] Black letter, 8vo, A—I⁸, K⁴.

The approximate date assigned in the British Museum catalogue is 1530. This cannot be far wrong. It could not have been printed earlier than 1530, and might possibly be attributed to 1531—32. “Fletestrete at the sygne of the George” was the address until his death of Richard Pynson (Redman’s rival printer), who died between November 18, 1529, and February 18, 1530, the dates of the making and the proving of his will. Redman succeeded Pynson at the above address, and was established there in 1530, as he began to use Pynson’s device in that year. On account of the popular nature of the herbal, we might expect it to be one of the first works to which Redman would turn his attention, although he was printing from 1525 to 1530 at another address, and

does not seem to have issued an earlier edition. This edition of the work, therefore, could not have been printed before 1530, and must be assigned to a date between 1530 and 1540, the latter being the year of his death.

I am unable to trace an edition printed by John Skot. In the list of this printer's books, compiled by Mr. Gordon Duff, I find the following entry: "The Book of Herbes, 12mo. undated." This, of course, is not the exact wording of the title. The compiler did not gain access to a copy, as none of the catalogues of the chief British libraries records one, and it is doubtful whether a copy is now in existence. I quote the following notice from Herbert's edition of Ames, 1785:—

"'A boke of the propertyes of herbes the which is called an Herbal.' Contains K⁴. 'At the end, Imprynted at London by me John Skot dwellynge in Fauster Lane.' This over his device which is his cypher on a shield, hung on a rose-tree, flowering above the shield, supported by two griffins; at the bottom is a dog nearly couchant; I.S. the initials of his name, one on each side of the trunk of the tree. In the collection of Mr. Alchorne. Twelves."

Details of Skot's life are scanty, but his earliest address was "in the Parish of St. Sepulchre outside Newgate," where he issued his first dated book in 1521, his device at this time consisting of "his mark and initials on a shield surmounted by a helmet and supported by two dragons." By 1528, he was established in St. Paul's churchyard, where he used a new device as well as a modification of the old one. His last dated book, 1537, and five undated ones were printed in "Fauster Lane in St. Leonard's Parish." His edition of the herbal was printed at this last address, and must therefore be ascribed to the latter part of his career. It was probably printed between the year 1532 and the date of his disappearance in 1537.

The next three editions were printed by Robert Wyer. They are all without dates, but as far as I am able to ascertain, the following is their order:—

Title.—**¶** A newe Her- | ball of Macer, | Translated | out of La- | ten in to | Englysshe.

Colophon.—**¶** Imprynted by | me Robert wyer, | dwellynge in saint Martyns pa | ryshe, at the sygne of saynt | Johñ Euangelyst, | besyde Charyn | ge Crosse. | **✠**. Secretary type, 8vo, A—P.⁴

Title.—**¶** Hereafter folo | weth the know- | ledge, proper | ties, and the | vertues of | Herbes.

Colophon.—**¶** Imprynted by | me Robert wyer, | dwellynge in

saynt Martyns pa- | rysshe, at the sygne of saynt | Joh̄n Euangelyst, |
 besyde Charyn | ge Crosse. | † | [*Printer's mark*] Secretary type
 8vo, A—P.⁴

Title. — Macers | Herbal | Practy- | syd by | Doctor | Lynacro |
 Translated out of laten, | into Englysshe, which | shewynge theyr
 Ope- | racyons & Vertues, | set in the margent | of this Boke, to | the
 extent you | myght knowe | theyr Ver- | tues.

Colophon.—Imprynted by | me Robert wyer | dwellynge in seynt
 Martyns Pa- | rysshe at the sygne of seynt | Ioh̄n Euangelyst, besyde
 Charyn- | ge Crosse. [*Printer's device*]. Black letter, 8vo, A—W.⁴

The dates assigned to these works in the British Museum Catalogue are 1535, 1540, and 1530 respectively. Now a characteristic of Wyer's books is that not more than eight or nine, out of a series of more than one hundred, show the year of printing. It is, therefore, a difficult and dangerous task for one who is not a practical printer or typefounder to assign any date from a comparison of the types alone. Mr. Henry R. Plomer made a study of Wyer's books, and came to the conclusion that the "Secretary" type—so-called from its resemblance to the manuscript writing of the period—was used for the text of all books printed down to 1542. But in 1542, and from that time onwards, the order was reversed, the text of all books being printed in Black Letter, and the supplementary matter in "Secretary." Of the three editions quoted above the first and second are in this "Secretary" type, and as the approximate dates ascribed to these—namely, 1535 and 1540—fall in the period during which this type was employed, and as, also, there is no evidence to show that they were not printed during that period, they may be allowed to stand. But according to Mr. Plomer's theory, the third edition, the text of which is in black letter, must be assigned, not to the year 1530, but to a date later than 1542. Apart from the question of types, Mr. Plomer was of the opinion that this edition was later than the one ascribed to 1535, on account of "an addition to the text of herbs under (A)." But this consists only of two single lines obscurely placed at the end of A, immediately preceding B. They are of no importance, and seem to me to prove nothing. The order of the editions might just as well have been reversed and the lines omitted.

Some interesting observations may be made with regard to two of these editions printed by Wyer. It will be observed that the title-pages represent the work to be a translation of the Latin poem of

Macer on the virtues of herbs, and is so styled by Pulteney, who calls it a "jeune performance written wholly on Galenic principles." Other writers have followed Pulteney, but they do not seem to have examined these books, and their only authority is Wyer's new title-page. The herbal is supposed to have no connexion with the work of Macer, and that Wyer simply published it under that name to give it a high-sounding and attractive title, and thus enhance the chances of sale. I am not inclined either to support or question this supposition. My original intention was to ascertain to what degree, if any, Wyer was justified in affixing Macer's name to the work, but as the materials are only accessible in the British Museum, and official duties only permit of occasional visits to that library, I have been unable to carry out my desire. The original poem of Macer consisted of an account of the virtues of seventy-seven herbs. As Wyer's edition contains accounts of almost double that number, it will be seen that it is not a translation of the original poem, but as Macer's work was the most popular herbal of the Middle Ages, various manuscripts came into existence, modified and augmented to such an extent that, although they appear with the name of Macer, they are in reality different works. These manuscript herbals, purporting to be copies and translations of that writer, are probably the most common of all the manuscripts treating of the virtues of herbs. In the British Museum there are several belonging to the fourteenth and fifteenth centuries bearing this name, which show that the work was popular in England at that period. Bishop Tanner, quoted by Pulteney, refers to a fourteenth-century translation by one, John Lelamour. This found its way into the library of Sir Hans Sloane, and is now in the British Museum, together with other manuscripts on herbs belonging to the same collection. Lelamour's version I once hastily examined, and compared it with the printed editions of our herbal by Wyer. From the notes I made at the time, I found that it consisted of a number of chapters about equal to, or slightly in excess of, the number in Wyer. Of those I compared the majority seemed to have no connexion with the corresponding chapters in the printed herbal, but a few here and there agreed almost word for word. Wyer's employment of the name Macer, as far as Lelamour's manuscript is concerned, seems therefore to some extent justified, but his printed edition cannot be called a direct translation of the original seventy-seven chapters in verse which appeared with the name of Macer.

The above remarks concerning the agreement of a few chapters in Wyer's herbal with the corresponding chapters in Lelamour's manuscript

apply also to Banckes' herbal, for the text of Wyer's book must be regarded as another edition of Banckes'. There are, however, a few differences. The chapters in Wyer's three editions number 183 against 206 in Banckes', and some contain slight additions to the text. At the end of the books there are three additional chapters which are not found in Banckes': (1) The vertue of the oken tre; (2) The makynge of aqua vite perfectissima; (3) Graffynge & plantynge.

The statement that Wyer had no justification for the use of Macer's name on his title-page is more applicable to Linacre. Pulteney, in his reference to Macer's herbal, was led into making the remark that "even Linacre did not disdain to employ himself on this work." Such, however, was not the case. Linacre died five or six years before Wyer began to print, and there is no doubt that the honoured name was surreptitiously used to lend undue authority to the work. Whether or not Wyer was censured for this nefarious procedure I cannot say, but Linacre's name never appeared in later editions, although the same printer issued another book with the title, "Tho. Linacre, Doctor of Phisick, his compendious regiment, or dietarie of health used at Mount Pillour" (i.e., Montpellier). It is doubtful whether a copy of this exists. Maunsell records it in his catalogue of 1595. Needless to say, Linacre wrote no such work.

The next two editions of the herbal were printed by Thomas Petyt in 1541, and by William Middleton in 1546. Both are dated, and, like Banckes' edition, the text begins with "Agnus Castus" and ends with "Wormwood." The only copies I have been able to trace are in the Bodleian Library, and to Mr. Falconer Madan, M.A., I am indebted for copies of the title-pages and colophons.

Title.—A boke of | the propertyes | of herbes the whiche | is called an Har | bal, M.D. | XLI. |

Colophon.—**C**. Imprynted at London | in Paules churchyearde, | at the Sygne of the may- | dens head by Tho- | mas Petyt. | M.D.XLI. | Black letter, 8vo, A—I,⁸ K.⁴

Title.—A boke of | the propertyes | of herbes the | whiche is | called an | Herbal.

Colophon.—Imprynted | at London in Fletstrete | at the sygne of the George | nexte to seynt Dunstones churche | by me Wylyam Myddylton | In the yere of our Lorde | M.CCCCC.XLVI. | The thyrd day | of July | Black letter, 8vo, A—I,⁸ K.⁴

The following edition was printed by John Waley (or Walley):—

Title.—**C**. A boke of | the propertes | of herbes the | which is

cal | led an her | bal. | ✠ | [*Woodcuts representing Job and Amos at the bottom.*]

Colophon.—Imprynted at | London by | Johan Waley, | dwellynge in | Foster Lane. | [*Woodcut of St. John the Baptist*] Black letter, 8vo, A-H⁸, K⁴.

The only copy I have been able to find is in the library of the Manchester Medical Society, and I am indebted to the Librarian, Mr. A. F. C. Davey, for the above title and colophon. This edition is also undated, but in the old catalogue of the library the year is given as 1548. On what authority this has been fixed I cannot say, but from a comparison with other editions of the work, and in the absence of further details concerning the life of the printer, this date, I think, must be allowed to remain. As John Waley did not begin to print till 1546, the book could not have been published before that date. As in the case of other printers, Waley would probably make this popular work one of his earliest productions. This conjecture is also supported by the address in the colophon, "Foster Lane," where he was first established. Now to limit the probable period of the printing we must observe that two editions of the herbal printed by Wm. Copland, assigned to the years 1550 and 1552, have title-pages which show a considerable and well-marked deviation in the general wording. With the exception of Wyer's edition, previous issues have borne a short and simple title such as that of the present edition by Waley. Copland's title, then, seems to mark a new era in the career of the herbal, and may be regarded as the first of a series of descriptive and much longer titles, in which all later editions, with one exception, may be included. Those prior to Copland's may therefore be classed as a series of particular titles, the last of which was probably Waley's. Moreover, Copland's editions contain for the first time three additional chapters on "The virtues of water's styll'd," "The tyme of gathering of sedes, etc.," and "A generall rule, etc.," which, I believe, are to be found in all later editions. If Waley's had been printed later than Copland's, it is reasonable to suppose that he would have followed the practice of all the later printers by including these additions, as any indication that the work contained extra matter would have enhanced the chances of sale. But Waley closely follows the earlier editions of Banckes, Petyt and Middleton, and I should therefore judge his work to have been printed prior to that of Copland. If, therefore, the year assigned to Copland's earliest issue be correct—namely, 1550—Waley's must have been printed between 1546 and 1550. On this supposition the date 1548 may be allowed to stand.

The most interesting of all the editions of this little herbal are those printed by William Copland. As already stated in the remarks concerning the last printer, the title-pages of Copland's issues mark a new era in the career of the work. On account of the new wording of the title and the appearance of the initials "W. C.," two important errors have arisen concerning the authorship of the work. These will be referred to later.

Title.—A boke of the | properties of Herbes called an her- | ball, whereunto is added the tyme y^e | herbes, floures and Sedes shoulde | be gathered to be kept the whole ye- | re, with the vertue of y^e Herbes whē | they are styllēd. Also a generall rule | of al manner of Herbes drawen out | of an auncient boke | of Physycke by | W. C. | [*Woodcut of three roses in triangular position within a double circle; upper rose crowned; riband, "Kyge of floures."*]

Colophon.—Imprinted at London by Wylyyam | Copland. | Black letter, 8vo, **CL** *⁴, A—I⁸, K⁴.

Title.—A boke of the | properties of Herbes called an her | ball, whereunto is added the time y^e | herbes, floures and Sedes shold | be gathered to be kept the whole | yere, wyth the vertue of y^e Her- | bes when they are stilled. Al- | so a generall rule of all ma- | ner of Herbes drawen | out of an auncyent | booke of Phisyck | by W. C. | [*Woodcut of garden with lady seated; man approaching, and another holding her from behind. Wall in background, over which are men apparently in consultation.*]

Colophon.—**CL** Imprynted at London in the | Flete strete at the sygne of | the Rose Garland by | me Wylyyam Copland. | for John wyght. | Black letter, 8vo, A—K⁸.

Both are undated. In the British Museum Catalogue, the former is assigned to the year 1550, and the latter to 1552. Like Banckes's edition, the text of each begins with "Agnus Castus" and ends with "Wormewood." Although the corresponding chapters agree word for word throughout, they are two distinct and different issues. But in addition to the text of Banckes's, these editions by Copland contain for the first time the three extra chapters already quoted: (1) "The vertues of waters styllēd"; (2) "The tyme of gathering Sedes, floures, herbes, and Rootes . . ." (3) "A generall rule of all maner of herbes . . ."

In the former edition the second and third of these additions precede the first chapter of the text, "Agnus Castus," while the first falls between the end of the text "Wormewood" and the "Table." In the latter

edition their position is changed. The first and second take the place of the second and third, while the third follows the "Table."

The interesting point concerning Copland's issues is that the initials "W. C." on the title-page have given rise to two curious errors regarding the authorship of the works. By present-day cataloguers and bibliographers these initials have been taken as representing the names "Walter Cary" and "William Copland," and under one or the other of these many editions are frequently found. In the British Museum Catalogue, Walter Cary is credited with the authorship, and Copland is stated by his biographer in the "Dictionary of National Biography" to be the compiler. Bishop Tanner also refers to Copland as the editor. With regard to Walter Cary, I should say that Ames (or Herbert) was probably the first to ascribe it to that author. In the monumental work, "Typographical Antiquities," various editions are catalogued. In the entry describing one published by Anthony Kitson we find the name "*Walter Cary*" added in italics after the initials "W. C." This is evidently the authority on which later bibliographers have ascribed the work to Cary. But it is clear that Ames (or Herbert) had no positive knowledge concerning either the work itself or the supposed author, for in his description of another edition printed by Copland he adds, after the same initials "W. C.," the words "probably himself," which means, of course, that William Copland was probably the author. Had the contents and the origin of the work really been known to him, he would not have ascribed two separate editions to two different authors.

This error suggests the question, "Who was Walter Cary?" I know of no medical writer of this period other than this author whose name could be represented by the initials "W. C." But details concerning the life of Cary are not easily found. The standard biographical works such as Tanner, Cooper, Wood, Munk, and the "Dictionary of National Biography" contain no reference to him, and no mention of his name is to be found in the indexes to the Sloane, Harleian, Stowe, and additional MSS. Even a request for information in *Notes and Queries* brought forth no reply.¹ Cary was

¹ At the moment of going to press there appears in *Notes and Queries* (March 29, 1913) a lengthy and important account of the Cary family by Mr. A. L. Humphreys, who refers to an entry which escaped my notice in W. D. Macray's "Register of Magdalen": "Walter Carie or Carey, co. Bucks, elected for dioc. Chichester, Demy, 1561 (Reg. p. 160). M.A. lic. March 24, 1573, inc. July 14. On Feb. 8, 1573, he had six months' leave 'causa promotionis.' Resigned 1574."—New Series (London, 1897), vol. ii, p. 184. Mr. Humphreys also draws attention to a passage in "The Hammer for the Stone," 1580, which indicates that the author lived at High Wycombe. This passage I noticed when I examined the work, but did

however, the author of the works, "Carie's farewell to Physicke," 1583, "The Hammer for the Stone," 1581, and, according to the British Museum Catalogue, "The Present State of England," &c., 1626. Now, if Cary wrote as late as 1626, it is obvious that he could not be the author of the herbal printed in 1550, which was another edition of the work printed by Banckes in 1525. But owing to the fact that the "Present State of England" was not a medical book, and that, also, an interval of forty-five years separated the work from "The Hammer for the Stone," 1581, I am not perfectly satisfied that Cary was publishing as late as 1626. Moreover, we are confronted with the tantalizing information by Hazlitt that editions of the "Hammer for the Stone" were printed by R. Kele (without date), W. Myddylton, 1546, and T. Petyt, 1543, which, if correct, makes Cary a contemporary of Copland and kills the argument that he could not have been the author of the herbal on account of his having lived at a period much too late. But I am equally apprehensive that no such editions existed, as Hazlitt's information does not consist of bibliographical descriptions, but only references to these editions, which proves that he never saw them. The edition of 1546 is also entered under Myddylton's books in Duff's "Hand Lists," but the book itself was not examined by the compiler, as the absence of the name of any library after the entry of the work indicates that no copy is to be found either in the British Museum, the Bodleian, Cambridge University, or in other libraries, the catalogues of which are accessible. The entry was probably quoted from Hazlitt. Moreover, the probability that these editions never existed is increased by evidence that Cary was living as late as 1611. In an edition of his "Farewell to Physicke" published in that year one finds "A caveat (from the

not quote as it threw no light on Cary's supposed association with the herbal. The following passages are taken, apropos of my own remarks, from Mr. Humphreys's valuable account of the Cary family, which is the result of a search among the records of the ancient town of High Wycombe: "'A Booke of the Properties of Herbes' . . . bears on the title-page the initials 'W. C.,' which may stand either for Copland or Cary. This was one of several editions of Banckes's 'Herbal,' then very popular, and, although it may have been edited or promoted in some way by a Walter Cary, it could not have been by the one who wrote 'The Hammer for the Stone.' The 'Herball' was issued somewhere about 1550, and various editions of it exist, . . . but all these appeared when the Walter Cary we are considering was a child. There is, however, a connexion between the Carys and herbals, because it is well known that Henry Lyte (1529-1607) of Lytes Cary was the famous translator of Dodoen's 'Herball,' 1578, and he had a herbal garden at Lytes Cary. . . . It seems certain that 'The Hammer for the Stone' and 'The Farewell to Physick' were written by Walter Cary of High Wycombe, M.A. of Magdalen; but, from the dates, it is impossible that the same Walter Cary could have written the Herbal, and most improbable that he wrote 'The Present State of England.'"

Authour) to the Reader," signed "W. Carie," complaining that "W. White hath printed this book without my consent," and therein "abused me the author." From this it is evident that Cary was alive in 1611, and was not then too old to be interested in literary work. This proves beyond a doubt that Cary could not have been the author of our herbal, for the edition bearing the initials "W. C.," printed about 1550, was another edition of "*Banckes' Herbal*" of 1525. Assuming, then, that the author or compiler was at least aged 25 when the work was first published, the date of his birth would be 1500. He would not therefore be writing "caveats" in the year 1611.

Having disposed of Walter Cary, we must now consider William Copland, whose association with the work was that of printer. Three or four editions are attributed to his press, and the only authority, so far as I am aware, for the statement that he compiled the work was the conjecture of Ames (or Herbert), already quoted. When the two books were examined, the connexion between Copland's edition and those by earlier printers was evidently unnoticed, and the new, elaborate title with the initials "W. C." gave the book the appearance of an entirely new work. It was only necessary for Ames to have had an earlier edition in his hands, when he described the one printed by Copland, to see that the texts were identical almost word for word. Copland's issue, with the exception of the three additional chapters, was another edition of "*Banckes' Herbal*." But, as these additions were printed for the first time by Copland, it is quite possible that they were "drawen out of an auneynt booke of Phisyck" by Copland himself. If the title is examined once more, it will be seen that this theory is quite tenable.

Two other editions, published by Anthony Kitson and Richard Kele, must, I think, be ascribed to Copland's press. Of these I have not been able to locate any existing copies, and therefore can only quote their titles from Ames. The following is Kitson's edition:—

"A booke of the properties of Herbes, called an Herball. Whereunto is added the tyme that Herbes Floures and Seedes should bee gathered to bee kept the whole yeare, wyth the vertue of the Herbes when they are styllled. Also a generall rule of all maner of Herbs, drawen out of an auncient booke of Physicke by W. C., *Walter Carey*. Contains besides X⁴ in eights, For him."

It will be observed that the wording of this title, with the exception of variations in the spelling, is the same as those by Copland just

described. This also is undated. Ames gives no colophon, and it is therefore difficult to fix the year of printing and to ascertain from whose press it was issued. Kitson published very few books, and these were printed for him by others. As Copland printed editions of this herbal for John Wight and Richard Kele, I should say that he printed Kitson's edition also. The new title, which was Copland's innovation, supports this conjecture. The signatures "X⁴ in eights" attract the bibliographer's attention. I should imagine this to be a misprint for "K⁴ in eights." To have contained X in eights, the book would have been extended to twice its original length, and from my acquaintance with previous editions I cannot conceive that the present issue underwent such a considerable augmentation. The following, published by Richard Kele, is said to have been taken by Herbert from an imperfect copy:—

"The book of the properties of herbes, called an herball, etc., drawn out of an ancient book of phisick by W. C. (probably himself) and with it a book of the seeing of vrynes of all the colours that vrynes, and with the medycynes annexed to euery vryne, and euery vryne hys uryrnall. For R. Kele, 12 August."

The size is octavo, and the date assigned in Ames is 1552, but in Duff's "Hand Lists" it is given as 1550. In any case it could not have been later than 1552, for in that year Kele died. The majority of his books were printed for him by W. Copland, W. Seres, or R. Wyer.

Another writer, who has been described as the author of two editions of the herbal, is Anthony Askham or Ascham, a priest, astrologer, and physician, who graduated M.B. in 1540, and was presented by Edward VI, in 1553, to the living of Burneston, in Yorkshire. In 1550 there appeared:—

Title.—A lytel | herball of the | properties of her- | bes newly amended and corrected, | with certayne addicions at the ende | of the boke, declaryng what herbes | hath influence of certaine Sterres | and constellations, wherby may be | chosen the beast and most luckye | tymes and dayes of their mini- | stracion, accordynge to the | Moone being in the sig- | nes of heauen, the | which is dayly | appoynted | in the | Almanacke, made and gathered | in the yere of our Lorde god | M.D.L. the xii day of Fe- | bruary by Anthonye | Askham Phi- | sycyon.

Colophon.—Imprynted at | London in Flete- | strete at the signe of the George | nexte to Saynte Dunstones | Church by Wyllly— | am

Powell. | In the yeare of oure Lorde | M.D.L. the twelfe day of Marche.
Black letter, 8vo, A—K⁷. (A perfect copy A—K⁸.)

This book, together with a later edition printed by John King, is always attributed to Askham, and is placed under his name in bibliographies and catalogues. It has become known as "Askham's Herbal," and he is even credited with the authorship by his biographer in the "Dictionary of National Biography." I have examined the work, and have no hesitation in describing it as another edition of "Banckes' Herbal," 1525. There are, however, fewer chapters, these numbering 185 against 206 in Banckes, but copied practically word for word from the corresponding chapters in the 1525 edition. Under the letter A there is a slight rearrangement into stricter alphabetical order.

It is difficult to assign any part of this book to Askham. One searches in vain, not only for any indications of original additions by this writer, but also for any justification, however slight, for the association of his name with the work. The "certayne addicions at the ende of the boke" are not to be found, and I do not suppose they were ever printed. The text, like that of Banckes', ends with "Wormwode," and is followed by the "Table." For the omission of these additions I am unable to assign any reason. With the exception of the last leaf, which is blank, and is wanting in the copy I examined, the book is complete, and must have been published without them. This curious fact is all the more difficult to understand when we find that Powell printed nearly all the works attributed to Askham. If the bibliographers who have ascribed the work to this author had examined the title with greater care they would have observed that the phrase "by Anthonye Askham" refers not to the substance of the book itself, but to the "Almanacke," from which the additions were intended to be taken.

As all Askham's pieces are exceptionally scarce it is rather a pity that these additions, consisting evidently of a curious mixture of herbal medicine and astrology, were not included. It would have been interesting to learn what was the teaching of this astrologer, priest, and physician, whose liberal education, thought Pulteney, should have secured him from such delusion. One of his works, published in the same year as the herbal, and by the same printer, treats of astrological botany, but, like the Almanack, it is so scarce that I have not been able to trace a copy. It is known by the title: "Anthony Ascham his Treatise of Astronomie, declaring what herbes and all kinds of medicines are appropriate, and under the influence of the Planets, Signs, and Constellations; also how ye shall bring the virtue of the heavens, and nature of the

starres to every part of man's body being diseased to the sooner recouerie."

Another edition bearing Askham's name was printed by John Kynge. It is copied from that printed by Powell, and has the same title, with the usual variations in the spelling :—

Title.—A litle Her- | ball of the properties of Herbes, | newly amended and corrected, wyth | certayne Additions at the ende of | the boke, declaring what Herbes | hath influence of certain Sterres | and constellations, whereby maye | be chosen the best and most lucky | tymes and dayes of their mini- | stracion, according to the Moone | beyng in the signes of heauē | the which is daily appoi- | ted in the Almanacke, | made and gathe- | red in the yeare | of our Lorde | God. | M.D.L. | the xii. daye of Febru- | ary by Anthony Askhā | Physycyon. |

Colophon.—Imprynted at London, in | Paule's churchyarde, at the | signe of the Swanne, by | Jhon Kynge. | Black letter, 8vo, A—K⁷. (A perfect copy A—K⁸.)

The colophon bears no date, and the year 1550 mentioned on the title-page, which relates to the "Almanacke," and not to the book itself, has been quoted by bibliographers as the date of publication. This is the date assigned to the work in the British Museum catalogue. King, however, did not begin to print until 1555, and the book, therefore, could not have been printed before that year. A more probable date would be 1556—7.

The last edition of "Banckes' Herbal" we have to consider was also printed by John Kynge, who this time followed the title given to the book by Copland, rather than that by Powell, which he copied in the edition just described.

Title.—**A**. A boke of the | properties of Herbes called an her | ball, whereunto is added the time y^e | herbes, floures and Sedes shold | be gathered to be kept the whole | yere, with the vertue of y^e Her | bes when they are stilled. Al- | so a general rule of al ma- | ner of Herbes drawn | out of an auncient | boke of Phisyck | by W. C. | [*Woodcut.*]

Colophon.—**A**. Imprinted at London by | Jhon kynge, for | Abraham Wely. | Black letter, 8vo, A—K⁸.

This contains the same number of chapters as Banckes' edition, as well as the additions found for the first time in Copland's. It is also undated, and I am unable to say whether it was earlier or later than the other edition by the same printer. Details concerning Wely's life afford no clue, but it must have been printed between 1555, the year when King began to print, and 1561, the date of his death.

In concluding these notes on the various editions of the first herbal printed in England, it is perhaps necessary to explain why they have been made the subject of such a considerable portion of this paper. The explanation must be that this, I believe, is not only the first occasion on which they have been collectively described, but also the first attempt to remove the obscurity that has long existed concerning their authorship, so far at least as it concerns the printer, Wm. Copland, and the writers, Walter Cary, Anthony Ascham, and Thomas Linacre. With regard to the origin of the herbal, I think it will probably be found in one or more of the numerous fourteenth or fifteenth-century manuscripts on the virtues and properties of herbs which are still preserved in various libraries of this country. The issue may not be important, but here is a field of interesting research for the leisured student of this fascinating old literature.

“THE GRETE HERBALL.”

A year after the publication of “Banckes’ Herbal,” 1525, there appeared the first of the larger series of profusely illustrated books which were based chiefly on works printed on the Continent.

Title.—The grete herball | whiche geueth parfyte knowlege and under- | standyng of all maner of herbes & there gracyous vertues whiche god hath | ordeyned for our prosperous welfare and helth, for they heler & cure all maner | of dyseases and sekenesses that fall or mysfortune to all maner of creatoures | of god created, practysed by many expert and wyse maysters, as Auicenna and | other &c. Also it geueth full parfyte understandyng of the booke lately pryn | ted by me (Peter treueris) named the noble experiens of the vertuous hand | warke of surgery. [*Woodcut of a man, with a spade in his right hand, gathering grapes, and a woman emptying herbs and flowers out of her apron into a basket. In the lower corners two figures representing a male and female mandrake.*]

Colophon, preceded by full-page woodcut of printer’s mark.—¶ Im- prentyd at London in South- | warke by me peter Treueris, dwel- | lynge in the sygne of the wodows. | In the yere of our Lorde god. M.D. | XXVI. the xxvii. day of July. Black Letter, folio, ✠⁶, A—Z⁶, Aa—Ee⁶.

According to Ames, the first edition of this work appeared in 1516, but no trace of any copy bearing this date can be found. It is doubtless an error, as Treueris did not begin to print until 1522.

The second edition was also printed by Treveris in 1529. It is a copy of the first, without additional matter. The wording of the title is the same, but it will be observed that the last three lines do not contain the same number of letters. This fact, together with variations in spelling, shows that the type was set up afresh, and is, therefore, a new edition, not a re-issue of the original sheets with a new title-page. The colophon differs from the first in that it does not contain the printer's address.

¶ Imprynted at London in South | warke by me Peter Treueris. In | the yere of our Lorde god. M.D.XXIX. | the xvii day of Marce. Black letter, fol., ¶⁶, A—Z⁶, Aa—Ee⁶.

The colophons of both editions are preceded, on the same page, by the printer's mark, the top and bottom parts of the border of which are different. In addition to the 505 chapters on the virtues and properties of herbs, trees, and some minerals, arranged in the order of the alphabet, both editions contain an "exposicyon of wordes obscure" and a treatise on urines : *Sig. Cc. iiii, recto., bottom of col. 2.*—Hereafter foloweth the knowlege of ye dyuersytees and colours of all maner of urynes. . . . With regard to the authorship, it is necessary to quote the latter portion of the preface, but as this part of the book illustrates the medical ideas which prevail throughout these herbals, more especially the earlier ones, it is thought desirable to quote it in full. In reading of the virtues and healing properties we constantly come across such sentences as these :—

This herb is hot and dry
This herb is cold and moist, etc., etc.

These at once suggest the well-known theory adopted by Hippocrates regarding the four elements—Fire, Water, Earth, and Air. Upon this theory Galen based the hypothesis which ascribes to the properties of medicines and herbs the four qualities (or "principles" or "natures"), Heat, Cold, Dryness, and Moisture. In the four elements the four qualities were combined in pairs, thus :—

Fire was hot and dry.
Air was hot and moist.
Earth was cold and dry.
Water was cold and moist.

By the maintenance of an equable proportion and intermixture of these qualities the body of man was healthy and free from sickness. Disease was the result of their inequalities. The aim of the physician, therefore, was to promote qualities the opposite of those associated with the

existing disease, and from this standpoint the virtues of herbs were studied, and their heating or cooling properties determined. Each quality existed in four degrees. We thus find that a herb is hot or cold, moist or dry, &c., in the first, second, third, or fourth gradation.

The introduction to the "Grete Herball" is as follows: "Consideringe the greate goodnesse of almighty God, creatour of heauen and earthe, and all thinge therein comprehended, too whome be eternall laude and prayse, etc. Considering the course and nature of the foure elementes and qualities, where to the nature of a man is inclined, out of the which elementes yssueth diuers qualities, infirmities and diseases in the corporate body of man, but God of his goodnes, that is creatour of all thinges hath ordeyned too hys owne likenesse, for the great and tender loue, which he hath unto hym, to whom all thinges earthely he hath ordeined to be obeysant for the sustentacion and health of hys louyng creature mankynde, whiche is onely made egally of the foure elementes and qualities of the same, and whan any of these foure habounde, or hath more dominacion the one than the other, than it constrayneth ye body of man to great infyrmities or diseases, for the whiche the eternall God hath geuen of his haboundante grace, vertues in all maner of herbes, to cure and heale al maner of sekenesses or infirmities, to hym be falling through the influent course of the foure elementes beforesayde, and of the corrupcions and the venymous ayres, contrary the health of man. Also of unwolsame meates or drynkes, or holsame meats or drynkes, taken untemperatly, which be called surfetes, that bringeth a man sone to great diseases or sekenesse, whiche diseases ben of numbre and impossible to be rehersed & fortune as wel in vilages, where as nother Surgeons nor Physicians be dwellynge nygh by many a myle, as it doth in good townes where they be readye at hande. Wherefore brotherly loue compelleth me to wryte throughe the gyftes of the holy Ghoste, shewyng and enformyng how man maye be holpen with grene herbes of the garden and wedes of the feldes, as wel by costly receptes of the potecarys prepayred. Also it is to be understande, that all maner of medecynes that be contrary to sekenesses, is for the great superfluyte of ye humours or the diminucion of them, or for to restrayn the ours, where it is agaynst the feblenesse of ye vertues, for the alteration or solucion of contynuetes or woundes or other begynnynge, etc. It also to be understande that we fynde medecyns symple, laxatyfe, appetisant and mynysshinge the superhabundance of humours, and also symple medecynes curās, and also medecynes alteratyfes and consolidatyfes," &c.

The following is the remaining part of the introduction relating to the authorship: "This noble workes is compyled, composed, and auctorysed by dyuers & many noble doctoures and experte maysters in medecines, as Auicenna, Pandecta, Constantinus, Wilhelmus, Platearius, Rabbi moyses, Johannes mesue, Haly, Albertus, Bartholomeus, and more other," &c.

But this is not a sufficient explanation of its origin. The text was not compiled by any English writer directly from the authors quoted. With the exception of the preface and the supplement, it is a translation of the popular French work, "*Le Grant Herbiere*," the source of which has been the subject of some speculation. It has been regarded by Choulaut as derived from the Latin "*Ortus Sanitatis*," and by others from the German "*Herbarius zu Teutsch*." These were printed at Mainz in 1485 and 1491 respectively. But thirty years ago new light was thrown on its origin by an Italian authority, Professor Giulio Camus, who found in the Biblioteca Estense at Modena two manuscripts belonging to the fifteenth century. One of these, in Latin, is a treatise on simple medicines, of which the other, in French, is a translation. According to Professor Camus, the Latin manuscript is the work which went through many printed editions, and was popularly known as the "*Circa Instans*," from the first words of its introduction, which begins, "*Circa instans negotium de simplicibus medicinis nostrum versatur propositum*," &c. This has long been attributed by medical historians to Matthæus Platearius, a physician of Salerno in the twelfth century. The "Explicit" of this Latin manuscript is reproduced in facsimile in Professor Camus's memoir, "*L'Opera Saleritana 'Circa Instans' ed il testo primitivo del 'Grand Herbiere in Francoys,' secondo due codici del secolo XV, conservati nella Regia Biblioteca Estense*." It runs: "*Explicit tractatus herbarum Dioscoridis et Platonis atque Galieno et Macrone translatae, manu et intellectu Bartholomæi minid' senis in arte speciarie semper infusus*." Some French verses are also reproduced. In these we read, "*Il a esté escript Milcccc cinquante et huit*." It appears, therefore, that the work "*Circa Instans*" was not written in the twelfth century by the Salernitan physician, Matthæus Platearius, but by one "*Bartholomæus minid' senis*" (? de Senis) in the year 1458. As Professor Camus's memoir was published in 1886, it is somewhat strange that no reference to it is to be found in the recent "*Geschichte der Medizin*" of Neuburger and Pagel, where the "*Circa Instans*" is still referred to as the work of Platearius. From this one may infer that the memoir is not well known—an inference supported by the fact

that it lies hidden away in the "Memorie della Reglia Accademia di Scienze, Lettere ed Arti in Modena," ser. 2, vol. iv, 1886, p. 49. It is worthy of a separate existence.

As the French manuscript of the "Circa Instans" is another version of "Le Grant Herbier," the text of our own "Grete Herball" is, therefore, derived from the same source. The preface and supplement, however, seem to find their origin in the German "Herbarius zu Teutsch" and the Latin "Hortus Sanitatis."

The woodcut figures which illustrate the first and second editions of the English work number 478, but they call for no special remarks. Unlike the illustrations in the later herbals of Turner, Lyte, and Gerard, they are of no importance in the history of botanical illustration. The majority, taken from those in the French edition, are reduced and inferior copies of the cuts in the German herbals mentioned above. In this instance one cannot do better than quote Pulteney: "Many are fictitious and many misplaced. In a variety of instances the same figure is prefixed to different plants, and in very few are they sufficiently expressive of the habit, to discriminate even a well-known subject, if the name applied did not suggest the idea of it. In some, these icons are whimsically absurd, especially in the animals and minerals."

Two later editions of the herbal appeared in England in 1539 and 1561, but these are less interesting than the editions printed by Treveris. One was printed by Thomas Gibson, and is entirely without cuts, while the other, printed by John King, only contains two figures of a man and a woman representing the male and female mandrake, the male figure being repeated at the beginning of the treatise on urines.

Title.—The great herball | newly corrected. | The contents of this boke. | A table after the Latyn names of all | herbes, | A table after the Englyshe names of all | herbes. | The propertees and qualytes of all | thynges in this booke, | The descrypcyon of urynes, how a man | shall haue trewe knoweledge of all seke- | nesses. | An exposycyon of the wordes obscure and | not well knowen. | A table, quykly to fynde Remedyes | for all dyseases. | God saue the Kynge. | Londini in edibus Thome Gybson | Anno | M.D.XXXIX. [*The above title surrounded by woodcut border of classic design.*] Black letter, fol., 4 prel. ll., A—Z⁴, Aa—Bb⁴, Cc⁶.

The introduction in the first and second editions of 1526 and 1529 is omitted in this, and its place taken by "The prenter to the reder." The address at the end of the text of those editions, "O ye worthy reders," &c., is also omitted, and instead of the original 505 chapters

there are only 481. An edition bearing the date 1550 is recorded in Ames, and referred to by Pulteney, but I have been unable to trace it, no such edition being found in modern catalogues and bibliographies. The following is what is generally accepted as the fourth edition.

Title.—The greate Herball, which | geueth parfyte knowledge & un- | derstandinge of al maner of her | bes, and theyr gracious vertues, whiche God hath ordeyned for | our prosperous welfare and health, for they heale and cure all ma- | ner of diseases and sekenesses, that fall or mysfortune too all | maner of creatures of God created, practysed by many | experte and wyse maysters, as Auicenna, Pandecta, | and more other, &c. ¶ Newlye corrected and dili- | gently ouersene. In the yeare of our Lord | God. M.CCCCC.LXI. [*Woodcut different from that in editions of 1526 and 1529.*]

Colophon.—Imprynted at London in | Paules churcheyarde, at the signe of the Swane, | by Jhon Kynge. In the yeare of our | Lorde God. M.D.LXI. Black letter, folio, ✠⁶, A—X⁶, Y⁸, Aa⁶, Bb².

The three cuts have already been described. This edition follows that of Treveris more closely than does Gibson's. The original introduction, "Consideringe the grete goodnesse," &c., and the address at the end, "O ye worthy readers or practisiens," &c., are both included, and the "Table" gives 503 chapters.

TURNER'S HERBAL.

The first original English botanist of the sixteenth century was William Turner, Dean of Wells, Protestant divine, controversialist, and physician. He was born about 1510-15, and in 1531 was a Fellow of Pembroke Hall, Cambridge. Like his German contemporary botanists, Turner was a pronounced Lutheran, who threw himself heart and soul into the work of the reformers. He was, therefore, in constant trouble, and for preaching without a license was imprisoned and afterwards banished. Crossing to the Continent, he travelled extensively, studying botany under Luca Ghina at Bologna, and taking a medical degree either there or at Ferrara. On the accession of Edward VI, he returned to England, was appointed physician to the Duke of Somerset, became Dean of Wells in 1550, but was deprived of his office by Mary in 1553. He again crossed to the Continent and renewed his botanical studies, having a garden at Weissenberg and another at Cologne. When Elizabeth came to the throne in 1558, Turner returned, and was reinstated in his deanery, but four years later was again in trouble, being suspended for nonconformity. He died in 1568.

Turner has been called "The Father of English Botany," and justly so. He was the first English botanist who studied plants scientifically, and his work marks a new era in the history of the science in England. The superiority of his herbal over any of the earlier English publications is recognized immediately the comparison is made. This was published in three parts, the first in 1551.

Title.—A new Herball, wherein are conteyned the names of Herbes in Greke, Latin, Englysh, Duch, Frenche, and in the Potecaries and Herbaries Latin, with the properties degrees and naturall places of the same, gathered and made by Wylliam Turner, Phisicion unto the Duke of Somersettes Grace. Imprinted at London by Steven Mierdman. Anno 1551. Cum Priuilegio ad imprimendum solum. And they are to be solde in Paules Churchyarde.

Colophon.—Imprinted at London, By Steuen Myerdman, and they are to be soolde in Paules churchyarde at the sygne of the sprede Egle by John Gybken.

The title is within an elaborate woodcut border, the Royal Arms being at the top. On each side is an upper and lower figure (four in all), and between them the royal letters "E.R." The printer, Mierdman, was an Antwerp workman who came over to England as a Protestant refugee. The bookseller Gybken was also an alien member of the trade. The part is dedicated to "Edward Duke of Summerset." The second part was not published till eleven years later (1562) at Cologne by another printer, Arnold Birckman.

Title. | The seconde parte of Vuilliam Turners herball, wherein are conteyned the names of herbes in Greke, Latin, Duche, Frenche, and in the Apothecaries Latin, and somtyme in Italiane, wyth the vertues of the same herbes with diuerse confutations of no small errours, that men of no small learning haue committed in the intreatinge of herbes of late yeares. . . . set furth by William Turner Doctor of Physik. [*Printer's mark.*] Imprinted at Collen by Arnold Birckman. In the yeare of our Lorde M.D.LXII. Cum gratia et Priuilegio Reg. Maiest.

This is dedicated to Sir Thomas Wentworth. The third part was printed in 1568, together with new editions of the first and second parts. This was the complete edition, published also at Cologne by the same printer, Birckman.

Title.—The first and seconde partes of the Herbal of William Turner Doctor in Phisick, lately ouersene, corrected and enlarged

with the Thirde parte, lately ga- | thered, and nowe set oute with the
names of the herbes, in Greke | Latin, English, Duche, Frenche, and in
the Apotheca- | ries and Herbaries Latin, with the properties, | degrees,
and naturall places of the same | . . . | . . . | . . . | set furth by
William Turner Doctor | in Phisick. | God saue the Quene | [*Woodcut
of Royal Arms.* | Imprinted at Collen by Arnold Birckman, In the yeare
| of our Lorde. M.D.LXVIII. | Cum Gratia & Priuilegio Reg.
Maiest.

The second part has a separate title-page. So also has the third.

Title.—The thirde parte of Vuil- | liam Turners Herball, wherein
are contained the | herbes, trees, rootes, and fruytes, whereof | is no
mention made of Dioscorides, | Galene, Plinye, and other | olde
Authores. | God saue the Quene. [*Woodcut of Royal Arms.*] Im-
printed at Collen by Arnold Birckman, In the yeare | of our Lorde
M.D.LXVIII. | Cum gratia & Priuilegio Reg. Maiest.

The first part of this complete edition of 1568 is dedicated to Queen Elizabeth, and the third to "the right worshipfull Fellowship and Companie of Surgiones," &c.

Turner's early work consisted chiefly of the identification of the plants described by Dioscorides and other ancient writers. When he published his first botanical work, "*Libellus de re herbaria*," 1538, being then a Fellow of Pembroke Hall, he could "learne neuer on Greke, neither Latin nor English name euen amongst the Phisicionen of anye herbe or tre, such was the ignorance in simples at that tyme, and as yet there was no English Herbal but one, all full of unlearned cacographees and falselye naminge of herbes." In this work, and in the Herbal, Turner used his classical scholarship to good purpose, and, as can be seen from his own prefaces, he claimed for himself considerable originality—a claim which has been allowed by modern botanists, although practically ignored by his European contemporaries and immediate successors. This was due, doubtless, to his fearless and searching criticism, which contemporary herbalists resented. But while Turner criticized freely, he did so honestly, and gave praise wherever he thought it due. "Brunfels, Fuchsius, Gesner, Bock," he writes, "haue greatly promoted the knowledge of herbs by their studies, and haue eche deserued verry muche thanke, not only of their own countries, but also of all the hole common welth of all Cristendome."

His studies and extensive travels on the Continent gave him abundant opportunities of observing and collecting plants, and to these enforced absences from England is perhaps due not a little of Turner's

originality. "I went into Italye and into diuerse partes of Germany to knowe and se the herbes my selfe, and to knowe by practise their powers and workinge, not trustinge onely to the olde herbe wiues and apothecaries (as manye Physicioness haue done of late yeres), but in the mater of simples myne owne eyes and knowledge: wherefore I haue somthinge of myne owne to present and geue." He was therefore not afraid to expose the errors even of those whom he praised. In a letter to Fuchsius he "dyd frendlie admonishe him of certeyne errours that were in his herball." Matthiolus, physician to the Archduke Ferdinand and to the Emperor Maximilian II, and the chief commentator of Dioscorides, naturally came in for a good share of criticism. With his interpretation of the classical writer Turner did not agree, and wrote, "Because Matthiolus is a learned man, therefore by the opinion of his learninge even wythoute good reason and autorite maye drawe other after him into his error; for the defence of the trueth, I will confute hys error both wyth reason and sufficient authorite." Again, with regard to the same author, he writes: "I borrowed verye littel or ellis nothinge of Matthiolus, and when as the herball of Matthiolus came out in Latine, many thinges that were thought straunge both unto English men and Germanes, were nether straunge nor unknowen unto me, because I had learned the same before of my maisters in Italye. . . . Yet do I graunte that of his herball I learned somthinge, but not so addicte unto him, but that I wrote against him in some partes of my Herball, where as I thought he erred, and they that haue red the first part of my herball, and haue compared my writings of plantes with those thinges that Matthiolus, Fuchsius, Tragus, and Dodoneus wrote in ye firste editiones of their Herballes, may easely perceyve that I taughte the truthe of certeyne plantes, whiche these aboue named writers either knew not at al, or ellis erred in the greatlye. . . . So that as I learned something of them, so they ether might or did learne somthinge of me agayne, as their second editions maye testifye."

I have quoted freely from Turner's prefaces as they reveal not only the nature and temperament of the man, but also his own estimate of the position he held among European botanists of his day. He was the only original English writer on the subject in the sixteenth century, and his herball occupies in our own country a position similar to that which is held on the Continent by the herbals of the Renaissance scholar-botanists and physicians of Germany—Brunfels, Bock, and Fuchs—whose beautiful works mark the culminating point in the history of the herball proper.

Turner's Illustrations.

Turner's work has just been described as the only original English herbal written in the sixteenth century. This statement, however, does not apply to the woodcut figures with which the book is illustrated. Whatever share may be claimed for our own country in the promotion of botanical studies during this period, it is clear that we contributed little or nothing to the history of the art of plant illustration as concerned with wood engraving. Nor can we lay claim to any original series of woodcut figures of plants in any preceding century. If we turn to Anglo-Saxon times and examine the figures in the manuscript versions of the "Herbarium" of Apuleius Platonicus—the most popular herbal in England at that period—we find that they are not original cuts drawn and engraved from Nature, but copies of a series of older figures, which are copies themselves of others older still. Their characters exhibit no trace of original work on the part of the Anglo-Saxon artists, and belong to the lowest period of Graeco-Roman or classical art. The first herbal printed in England with woodcut figures was the "Grete Herball" of 1526. The text of this, as already indicated, was a translation of the French work, "Le Grant Herbier," and the figures were inferior copies of those in the German works, "Herbarius zu Teutsch" and the "Hortus Sanitatis."

The next profusely illustrated English herbal was that of Turner, the complete edition of which, printed at Cologne in 1568, contained about 500 woodcut figures. These are markedly superior to those in the "Grete Herball." But the majority were not the work of an English artist, and for the originals we must go to the Continent, where, in 1530, a new era was inaugurated in the history of plant illustration by the publication of the great work of Otto Brunfels—"Herbarum vivæ eicones"—"living pictures of plants." These surpassed in a remarkable degree every other existing collection of plant figures, and were the work of an eminent engraver, Hans Weiditz, or Guiditius, who took for his models not the old conventional figures of the earlier copyists, but a new and original series drawn from the plants themselves with a beauty and fidelity that had never been equalled. But the culminating point in the history of plant illustration was reached twelve years later in the herbal of Leonhard Fuchs, "De historia stirpium," 1542, whose exquisite cuts were engraved by the eminent Strasburg engraver, Vitus Rudolphus Specklin, from drawings which faithfully depicted each plant with its own roots, leaves, flowers, seeds, &c. These

surpassed even those of Brunfels, and not only remained unsurpassed, but have never been equalled by any other collection.

Now when Turner published his herbal it would be quite natural for him to endeavour to secure the best collection of blocks available. These belonged to Fuchs, who had two sets, one for the folio edition of his herbal, and the other for the octavo edition of 1545. The blocks of the latter were evidently borrowed by Turner's printer, and of the 516 employed by Fuchs more than 400 were used in the complete edition of the herbal printed at Cologne in 1568. The advantage of securing the loan of these blocks was probably the chief reason why the book, like Lyte's translation of Dodoens, was printed abroad. But a number of Turner's figures were not taken from Fuchs. Of these a few were copied from the smaller figures of Matthiolus, but the source of the remainder I am unable to state. They were probably engraved from plants collected by Turner himself.

LOBEL'S HERBAL.

Matthias de L'Obel, after whom the garden flower *Lobelia* takes its name, was, like Dodoens, another Flemish herbalist who contributed to English botany. He was born in Flanders in 1538. After studying under Rondeletius at Montpellier, and travelling over various parts of the Continent, he settled at Antwerp, practised medicine, and became physician to William the Silent. About 1569 he crossed over to England, and resided with his son-in-law at Highgate, where he died in 1616. He held the appointment of superintendent of the physic garden belonging to Lord Zouch at Hackney, and received later the title of Botanist to James I. His first work, written in conjunction with Peter Pena, a Frenchman, who was at one time physician to Louis XIII, bears the following title:—

Stirpium Adversaria Nova, | perfacilis vestigatio, luculentaque accessio ad Priscorum, præsertim | Dioscoridis et recentiorum, Materiam Medicam. | Quibus propediem accedet altera pars. | Qua | Coniectaneorum de plantis appendix, | De succis medicatis et Metallicis sectio, | Antiquæ e[t] nouatæ Medicinæ lectorum remediorū | thesaurus opulentissimus, | De succedaneis libellus, continentur. | Authoribus Petro Pena & Mathia de Lobel, Medicis. |

Colophon.—Londini, 1571. | Calendis Januariis, excudebat prelum Tho- | mæ Purfœtii ad Lucretiæ symbolum. | Cum gratia Priuilegii. |

Underneath the title is a curious map of Europe and part of Africa,

and the whole is an excellent specimen of copper-plate engraving. Like the complete edition of Turner and the herbals of Lyte and Gerard, Lobel's work has a fulsome dedication to Queen Elizabeth. Next comes a second dedication to the Professors of the University of Montpellier, followed by a Latin index consisting of six leaves. The text occupies the pages numbered 1 to 455, followed by an unnumbered single leaf containing an account, illustrated on the verso by two woodcuts, of the Plocamos of Portland and the legend of the barnacle shells producing wild geese.

The above volume forms the first part of the "Adversaria." The second was not published till 1605, when a re-issue of the original sheets of the first part with an entirely new title-page appeared with it. This was erroneously regarded by Pulteney as a second edition. It runs:—

"Dilucidæ | Simplicium Medicamenorum [sic] | Explicationes, | & Stirpium Adversaria . . . | . . . | . . . | . . . | Authoribus Petro Pena & Matthia de L'Obel medicis. | Quibus Accessit Altera Pars, cum prioris | Illustrationibus, Castigationibus, Auctariis, Rarioribus aliquot Plantis. | . . . | . . . | . . . | . . . | Opera et studio eiusdem Matthiæ de L'Obel. | . . . | Londini, 1605. Idibus Aprilis. | Ex Topographia Thomæ Purfootii."

On the back of the title are the Arms of James I, followed on the next leaf by the dedication to the Montpellier Professors. The dedication to Elizabeth is naturally omitted. The text of the work is made up of the original sheets printed in 1570, with the exception of the last leaf, which is reprinted, in inferior type on thinner paper, with a new colophon, but without the two woodcuts. This will be referred to later. The title of the second part begins:—

"Matthiæ de Lobel | . . . | . . . | . . . | . . . | Adversariorum Altera Pars," | &c., &c. [*continued at some length*].

Above are the arms of James I. This second part follows the first with a continuous pagination beginning on sig. Qq 2 (the new extra leaf to the first part having the sig. Qq [i]) and ending on page 549.

From the bibliographical standpoint, the first part of the "Adversaria" is of great interest. The irregularity in the printing of the last leaf gave rise to the extraordinary statement by Pulteney that Christopher Plantin of Antwerp, and not Purfoot, was the real printer of the work. Such however was not the case, and in the interests of English printing it is necessary to rectify this error, which has been copied by later writers. On examining Purfoot's publication of 1605, consisting of the

first and second parts of the "Adversaria" (the first with the new title-page quoted above), preceded by another work of Lobel's—"Animadversiones in Rondeletii methodicam pharmaceuticam officinam"—he found that the first part of the "Adversaria" was notably superior to the rest of the volume, being printed in better type and on thicker paper. He therefore regarded it as a production of Plantin's Antwerp press, and the inference is that the last leaf bearing Purfoot's colophon, which was also printed with inferior type and on thinner paper, was added by Purfoot to give the work the appearance of one of his own publications. The fact that Plantin, in 1576, published another of Lobel's works, "Plantarum seu Stirpium historia," and appended the first part of the "Adversaria," precisely the same as that published by Purfoot in 1605, but with a new title-page and a different impression of the last leaf, was doubtless the foundation on which Pulteney based his statement. But why he should have overlooked the interesting extra leaf with Purfoot's colophon, which Plantin retained, it is difficult to say. It should have been quite obvious that Plantin would not have issued a work of his own with the colophon of another printer. However, the explanation of the whole affair is that Plantin, in his desire to append the "Adversaria" to Lobel's new work, purchased 800 copies of Purfoot's edition at the price of 1,200 florins, instead of printing the work afresh. To these he prefixed a new title-page bearing his own imprint, "Antverpiæ apud Christophorum Plantinum Architypographum Regium, M.D.L.XXVI." He also paid 120 florins for 200 of the 250 woodcut figures with which the work was illustrated. Considering the fame of Plantin's press, and the high standard of workmanship which he always maintained, the transaction is a compliment to London printing of that date.

Another interesting observation may be made with regard to the peculiar last leaf bearing Purfoot's colophon, which in the first edition of 1570 was unnumbered and evidently printed separately. It would appear that the number struck off was not large enough to complete all the copies of the "Adversaria" which remained after the sale of the first issue in 1570, plus the 800 impressions bought by Plantin in 1576. Purfoot, therefore, when he issued the remaining copies with a new title-page in 1605, would have to reprint the last leaf. And the absence of the two curious cuts representing the Plocamos of Portland and the legend of the barnacle shells is explained by the fact already stated that Plantin acquired the majority of his blocks in 1580. But these two particular cuts had evidently left his possession some time previously,

for they are to be found in the Antwerp edition of the "Plantarum seu Stirpium historia," of 1576.

Another book by Lobel, printed in England, was a fragment of a larger work which the author intended to publish under the title "Illustrationes Plantarum." Pulteney informs us that Lobel did not live to finish it, but How says it was completed. The fact remains that the work never appeared in its intended form. This fragment was edited under the following title by William How, a botanist and physician, and author of a work published anonymously on British Plants.

"Matthiæ de L'Obel | M.D. | Botanographi Regii eximii | Stirpium Illustrationes. | Plurimas elaborantes inauditas plantas, | subreptitiis Joh: Parkinsoni | rapsodiis (ex codice MS. insalutato) | sparsim gravatæ. | Ejusdem adjecta sunt ad calcem | Theatri Botanici | *Ἀμαρτημαλα*. | Accurante Guil. How, Anglo. | Londini, | Typis Tho: Warren, Impensis Jos: Kirton, Bibliopolæ, in Cœmeterio D. Pauli, | 1665."

Another part of the manuscript was purchased by Parkinson, who embodied it in his "Theatrum Botanicum" of 1640. As will be seen later, from the title of his work, Parkinson did not attempt entirely to conceal this fact, but he did not adequately express his indebtedness by showing to what extent he had drawn on these papers of Lobel. For this he is severely criticized by How, who complains of his action in taking many of Lobel's observations and expressing them as his own.

Lobel's Illustrations.

One cannot close an account of Lobel's works and those of his contemporaries, Dodoens and Clusius, without observing not only how far their studies contributed to the history of the herbal in England, but also the proud position which their figures occupied in the history of botanical illustration. Lyte's important work, which ranked as a popular English herbal, was a translation of Clusius's French version of Dodoens' "Cruydtboeck," and it will be seen later that Gerard's herbal was in the main a translation of the final work of the same writer. Lobel's "Adversaria," on account of its being printed and published in London, and on account also of the author's close association with the study of botany in this country, can also be classed as an English herbal. But the popularity of these writers in their own country was due in no small degree to the zeal of the eminent printer,

Christopher Plantin, at whose expense the large collection of beautiful woodcut figures which illustrated their later works were either engraved or got together. The blocks are preserved to this day, and may be seen by any visitor to the famous Plantin Moretus Museum at Antwerp. Owing to its being written in Latin, Lobel's "*Adversaria*" did not attain in this country the popularity enjoyed by Turner's herbal and Lyte's English translation of Dodoens.

Concerning the figures which were used to illustrate the first and second parts of the "*Adversaria*," printed by Purfoot, there is little to be said beyond the fact that the majority were purchased by Plantin and added to the large collection of figures which he gathered together and subsequently published separately. Many served to illustrate the "*Cruydtboeck*" of Dodoens published by Plantin in 1581, and also the work published in the same year, "*Plantarum seu stirpium icones*"—a collection consisting of all the woodcut figures of plants in Plantin's possession at that time. These numbered 2,181, the same number I believe which the *Cruydtboeck* contained. This collection was printed again in 1591. Both are arranged according to Lobel's scheme of classification—a scheme upon which his fame as a botanist chiefly rests. Plantin's edition of the "*Plantarum seu stirpium historia*," 1576, has been described as an enlarged edition of the "*Adversaria*." But this statement, which carries the inference that additions were made to the text itself, requires modification. Plantin's publication consisted of two distinct, although supplementary, parts, the first of which has the running title "*Stirpium Observationes*." The second part consists of the text of the "*Adversaria*," containing about 270 to 280 woodcuts, printed by Purfoot himself in 1570, in precisely the same state in which Purfoot issued it, without alterations or additions. Plantin simply added the work (with a new title-page and "*Royal Privilege*") to his own publication. Hence the title—"Plantarum seu stirpium historia. . . . Cui annexum est Adversariorum volumen." It cannot therefore be described simply as an enlarged edition of the "*Adversaria*." Nor would it be correct to state that the large Flemish "*Kruydtboeck*," consisting of upwards of thirteen hundred pages, and more than two thousand woodcuts, is merely a translation of Purfoot's edition. It is even much larger than the work of 1576, consisting of the "*Stirpium Observationes*" and the "*Adversaria*," the former of which contains about 1,470 figures. These figures have been regarded as derived from previous books, especially those of Clusius, but this statement also requires modification. About half were taken from the editions of

Dodoens and Clusius, but no less than 782 were expressly engraved for the work, the greater part by Antoine van Leest, and the remainder by Gerard van Kampen.

LYTE'S HERBAL.

Eight years after the publication by Purfoot in 1570 of the "Adversaria" of Lobel, there appeared the fine folio in English popularly known as "Lyte's Herbal." This was not the work of an original English botanist, but a translation of the French version by Charles de l'Escluse, 1557, of the Flemish Herbal or "Cruydtboeck" of Rembert Dodoens, published at Antwerp, 1554. Dodoens, although not an Englishman, has a special claim to remembrance in the history of English botany, as his Cruydtboeck in Lyte's translation was well received in this country, being considered, in the matter of arrangement, superior to the work of Turner. It was naturally more popular than that of Lobel, which was in Latin. His great herbal, "Stirpium historiæ pemptades sex," in which were gathered all his writings on this subject, together with the additional matter he had accumulated, became, as we shall see later, the foundation of the most popular of English herbals, that of Gerard, 1597. Like Turner and most of his contemporaries of the botanical Renaissance, Dodoens was conspicuous for his learning and attainments. The foremost botanist of his own country, he was born at Malines about 1517, and after studies at Louvain and the universities and medical schools of France, Italy, and Germany, he graduated M.D., and became physician to the Emperors Maximilian II and Rudolf II. Later he was Professor of Medicine at Leyden. His interest in the science of botany, and the opportunities he enjoyed for its study, made him one of the most industrious of European botanists, as is evident from the various works he published. Lyte's chief claim to remembrance does not lie in any originality in connexion with the book, but in the service he rendered English botany by his translation of this important work.

Title.—A Niewe Herball | or Historie of Plantes : | wherein is con-
tayned | the whole discourse and per- | fect description of all sortes
of Herbes | and Plantes : their diuers & sundry kindes : | their straunge
Figures, Fashions, and Shapes : | their Names, Natures, Opera-
tions, and Ver- | tues: and that not onely of those whiche are | here
growyng in this our Countrie of | Englande, but of all others also of
forrayne Realmes, commonly | used in Physicke. | First set foorth in
the Doutche or Almaigne | tongue, by that learned D. Rembert Do- |

doens, Physition to the Emperour : | And nowe first translated out of French into English, by Hen- | ry Lyte Esquyer. | At London | by me Gerard Dewes, dwelling in | Paules Churchyarde at the signe | of the Swanne. | 1578.

Colophon [Printer's mark].—Imprinted at Antwerpe, by me | Henry Loë Bookeprinter, and are to be | solde at London in Powels Church-
yarde, | by Gerard Dewes.

The title is surrounded by an elegant woodcut border on which are figures of Apollo, Gentius, Mithridates, Aesculapius, Artemesia, and Lysimachus. The lower part represents the Garden of the Hesperides. The whole seems to have been taken from the original Cruydtboeck of 1554 and Clusius's French version of 1557, but an ornament of flowers at the top has taken the place of the coat-of-arms on the original block. On the verso of the title-page is Lyte's coat-of-arms, and a crest "a swan volant silver upon a trumpet gold." On the recto of the second leaf begins the dedication to Queen Elizabeth, followed, on the recto of the third, by an address "To the friendly & indifferent Reader." On the verso of this begin the commendatory verses addressed to Lyte by W.B., Thomas Newton, Wm. Clowes, and John Harding, and on the verso of the sixth is a woodcut portrait of Dodoens, whose preface and epistle to the reader, both in Latin, together with the appendix, follow on the recto of leaves seven, eight, and ten respectively. The last leaf carries the colophon and printer's mark of Henry Loë. The work is in black letter, and, considering the workmanship of the period, forms a handsome volume.

Lyte's translation, like the original, is divided into six books, and contains descriptions of about 1,050 species. This is an increase on the number in Turner, to whose work it is superior in the matter of arrangement—the species, descriptions, places, names, and medicinal virtues being reduced in the various chapters to a particular order which was followed by Gerard and Parkinson. The cuts also exceed those in Turner by nearly 400. As Clusius's French version contained numerous corrections and additions, Lyte's translation may really be regarded as a second edition of the original work.

Lyte's Illustrations.

The first edition, 1578, was printed at Antwerp in order to make use of the woodcut figures which were then in the hands of the Antwerp printer, and also, presumably, in order that Dodoens himself could

keep in touch with the publication. On account of the title-page bearing the imprint "at London, by me Gerard Dewes," the work is sometimes referred to as a production of a London press, but this is not correct. Dewes's association with the book was that of publisher or bookseller, and the printing, as the colophon indicates, was carried out by Henry Loë at Antwerp. The figures have also been spoken of erroneously as having been acquired by the supposed London printer, and that Dodoens consequently met with considerable difficulties in his desire to publish his work in Latin. But as the work was not printed at London, the blocks never came to this country. They remained at Antwerp, and three years later were sold by the widow of Jean van der Loë to Christopher Plantin for the sum of 420 florins. Plantin used them, together with others which had been employed for the earlier works of Dodoens, Clusius, and De Lobel, for the great Latin herbal of 1583. This fact explains the reason why the later editions of Lyte's book, all printed at London, were published without figures.

Lyte's first edition contains about 870 cuts, and probably all of these, with the exception of thirty which are said to be new, were from the same blocks as were used for Clusius's translation, a large number of which were employed previously for the octavo editions of Fuchs's collection, 1545. Dodoens himself acknowledges that almost all the figures in his first edition were taken from Fuchs. But it would not be correct to state, as is generally supposed, that the figures in Lyte's edition were nearly all taken from Fuchs. Those in Lyte number about 870, whereas the cuts in Fuchs do not exceed 516. Nearly 360 therefore do not belong to Fuchs. These, or the greater part of them, were collected by Dodoens himself and employed for three other works which he published in 1563, 1568, and 1574, subsequent to the original edition of the *Cruydtboeck* in 1554, and prior to Lyte's translation of 1578. Whether the thirty in Lyte which are said to be original were executed for Lyte himself or not, I am unable to state. I should say they were probably supplied by Dodoens, who, in the interval between the publication of Clusius's French version and the English translation of 1578, had been hard at work collecting new figures and materials which he embodied in the three other works just mentioned. In the verses "in commendation of the work" by Thomas Newton at the beginning of the book there are indications that Dodoens was interested in the publication.

Great was his toyle, whiche first this worke dyd frame.
 And so was his, whiche ventred to translate it,
 For when he had full finisht all the same,
 He minded not to adde, nor to abate it.
 Till *Rembert* he, did sende additions store,
 For to augment Lytes travell past before.

Three other editions of Lyte's translation were printed at London by Ninian Newton, 1586; Edm. Bollifant, 1595; and Edward Griffin, 1619. The titles are long and closely follow the first edition of 1578. Being without illustrations, they are of little importance, and it has not been thought necessary to reproduce them. Other editions are stated to have been published in 1589, 1600, and 1678, but no trace of these can be found.

A book purporting to be an abridgment of Lyte's translation appeared in 1606 under the title beginning: "Rams little Dodeon. A briefe Epitome of the new Herbal," &c. It is nothing more than a book of recipes, unworthy of being associated with the name of Dodoens.

GERARD'S HERBAL.

The most popular of all the English herbals was that of John Gerard (1545-1612). Gerard studied medicine, and in 1562 was apprenticed to Alex. Mason, a surgeon, twice warden of the Barber Surgeons' Company. He was admitted to the freedom of this company in 1569, appointed junior warden in 1597, and elected master ten years later. Although Gerard evidently attained some eminence as a surgeon, he is better known as a botanist or herbalist. For the study of plants he had the most favourable opportunities, being superintendent of Lord Burleigh's gardens in the Strand, and at Theobalds, in Hertfordshire. He also had a garden of his own in Holborn, and published a catalogue of the plants it contained in 1596. The first edition of his herbal has the simple title:—

The | Herbal | or Generall | Historie of | Plantes. | Gathered
 by John Gerarde | of London Master in | Chirurgerie. | Imprinted at
 London by | John Norton. | 1597 |

Colophon.—Imprinted at London by Edm. Bollifant, | for Bonham
 & John | Norton M.D.XCVII.

The title is in the middle of a fine copper-plate engraving of floral and figure design, showing four mythological male figures holding plants. Underneath is a garden. On the back of the title are the arms of Lord Burleigh, to whom the work is dedicated on the next

leaf. The following eight preliminary leaves consist of laudatory letters from Lancelot Browne, Matthias de L'Obel, Dr. Stephen Bredwell, the Royal Surgeon, George Baker, and Gerard's own preface to the "courteous and well-willing Readers." Among them (B i to B 3 recto) are some verses. On the verso of the tenth leaf is a portrait of Gerard holding a branch of the potato plant. Underneath are his own arms, those of the City of London, and the Company of Barber-Surgeons. The whole work consists of 742 leaves or 1464 pages, the text occupying pages numbered 1 to 1392.

The most interesting point in connexion with this massive work is perhaps that which concerns its authorship. It is a matter that does Gerard little credit. Towards the end of the sixteenth century, it appears that the London printer Norton wished to bring out a translation of the great Latin herbal of Dodoens. He thereupon employed Dr. Priest to undertake the work, but either immediately before or after the translation was completed Dr. Priest, it is said, died, and Norton engaged Gerard, who at that time had a considerable reputation as a herbalist, to put the finishing touches to the work. From a fact which I have not seen recorded by any of Gerard's biographers—namely, that he held the appointment of curator of the physic garden belonging to the College of Physicians—I suspect that he was well acquainted with Dr. Priest, who was a Fellow of the College, and had a part in the preparation of the *Pharmacopœia*. It would not be unreasonable to suppose, therefore, that Dr. Priest took Gerard into his confidence and consulted him on various points in connexion with the work. In any case Gerard was probably acquainted with it, from the fact that he gained possession of the manuscript. But the discreditable part of the whole affair is that Gerard, in order that the work should not appear to be a translation, altered the whole arrangement and claimed it as a work of his own. The story is to be found in Johnson's preface to the edition of 1633, where he blames Gerard for "endeavouring to hide this thing from us, cauilling (though commonly unjustly) with Dodonæus whersoever he names him." What has been regarded as a somewhat remarkable oversight on the part of Gerard in allowing it to appear is a statement by Dr. Stephen Bredwell in his letter to Gerard, prefixed to the herbal, that "Dr. Priest for translating so much as Dodonæus hath hereby left a tombe for his honourable sepulture. Mr. Gerard comming last, but not the least, hath many waies accomodated the whole worke unto our English Nation." "But that," says Johnson, "which may serue to cleare all doubts, if any can be in a thing so manifest, is a

place in Lobel's Annotations upon *Rondeletius* his Pharmacopœia, where page 59 he findes fault with Dodonæus for using barbarously the word *Seta* for *Sericum*; and with Dr. Priest, who (saith he) at the charges of Mr. Norton translated Dodonæus, and deceiued by this word *Seta*, committed an absurd errour in translating it a bristle, when as it should haue been *silke*. This place so translated is to be seen in the chapter of the Skarlet Oke, at the latter F. And Lobel well knew that it was Dr. Priest that committed this error, and therefore blames not Mr. Gerard, to whom hee made shew of friendship, and who was yet liuing: but yet he couertly gaue us to understand, that the works wherein that error was committed, was a translation of Dodonæus, and that made by Dr. Priest, and set forth by Mr. Norton."

Gerard's herbal, then, is in the main the "Pemptades" of Dodoens translated, "so that diuers chapters haue scarce a word more or lesse than what is in him." A few plants were taken from Clusius, and others from the "Adversaria," while fourteen were original descriptions. "The volume has many of Gerard's own remarks inserted, such as localities in various parts of England for scarce plants, and many allusions to persons and places now of high antiquarian interest. He lays claim to a purely scientific object, but accepts much contemporary folk-lore." The legend of the barnacle shells may be cited as an example, but this is scarcely to be wondered at when we remember that Turner himself was deceived by the fable. "His chief commendation," thought Johnson, "was that out of a propense good will to the public advancement of this knowledge he endeavoured to perform there in more than he could well accomplish, which was partly through want of sufficient learning." Johnson, nevertheless, exhorts his readers to think well of Gerard, and not blame him for these defects, seeing that he was wanting neither in pains nor goodwill to perform what he intended. But whatever credit may be due to Gerard, he certainly cannot be commended for his disingenuous remarks in relation to Dr. Priest's translation. In his own preface he writes: "Dr. Priest, one of our London Colledge, hath (as I heard) translated the last edition of Dodonæus, and meant to publish the same; but being prevented by death, his translation likewise perished."

A second edition was brought out, amended and corrected, by Thomas Johnson in 1633:—

"The | Herball | or Generall | Historie of | Plantes. | Gathered by
John Gerarde | of London Master in | Chirurgerie | Very much En-
larged and Amended by | Thomas Johnson | Citizen and Apothecarye |
of London."

The title occupies the centre of a beautiful copper-plate engraving. At the top are figures of Ceres and Pomona, with a garden between them. In the middle are figures of Theophrastus and Dioscorides, one on each side of the title. At the bottom is an ornament of flowers and herbs in each corner, and between these a portrait of Gerard—a reduced copy of that in the first edition. The preliminary leaves contain the dedications of Johnson and Gerard, the laudatory letters of Lancelot Browne, Matthias de L'Obel, Dr. Stephen Bredwell, and Surgeon George Baker. Among them are Latin verses. Then follow addresses to the readers by Gerard and Johnson, and a catalogue of Johnson's additions. Johnson's address consists chiefly of a long and important account of herbal literature from the earliest times. This edition is much superior to, and more accurate than, Gerard's first edition of 1597, and was so well received that it was reprinted practically word for word three years later, the only alterations being the errata of the previous edition. The editor, Thomas Johnson, was a very able botanist, and a prominent member of the Apothecaries' Company. Partly on account of his learning, he was made M.D. by the University of Oxford in 1643, in which year he published a translation of the works of Ambroise Paré. To his edition of the herbal, which contains about 2,850 descriptions, he added more than 800 new species, and about 700 new figures, besides numerous corrections. Ray gave it the name "Gerard emaculatus," and by Haller it was styled "*dignum opus, et totius rei herbariæ eo ævo notæ compendium.*"

Gerard's Illustrations.

Gerard's cuts in the first edition of the work are the subject of some interesting remarks. With the exception of sixteen, they were not original. That is to say, they were not the work of any English artist, or engraved specially for the work. When the herbal was published in 1597, there was no English collection of blocks in existence, and Gerard, like his predecessors Turner and Lyte, was obliged to have recourse to one of the large series of figures which illustrated the herbals printed on the Continent. As Gerard's book was mainly a translation of the final edition of Dodoens, it would be quite natural to suppose that he would obtain the illustrations from the same source, but as all the figures which Dodoens used, together with those employed for the other Flemish herbals, were in the possession of Plantin at Antwerp, and as Gerard took pains to disguise the fact that his work was mainly a trans-

lation, it is probable that he had no particular desire to obtain the loan of these. Fuchs's collection, which Turner used, only contained about one-third of the number required, and would not serve Gerard's purpose. Norton, his publisher, thereupon applied to Nicolaus Bassæus, of Frankfurt, and obtained the loan of the blocks with which the herbal of Jacob Theodor of Bergzabern (or, as he is commonly called, Tabernæmontanus), was illustrated. This work, the "*Neuw Kreuterbuch*," appeared, the first part in 1588, and the second in 1591, but the figures, which exceeded in number those of Plantin's collection, were published separately in 1590 under the title "*Eicones Plantarum*." They were, however, not entirely original, and the majority were copied from the herbals of Lobel, Dodoens, Clusius, Fuchs, Matthioli, and Bock. It is thus obvious why so many of Gerard's figures closely resemble corresponding cuts in the works of those authors. Gerard did not make use of all these blocks, as those in his herbal number about 1,800 against some 2,200 in Tabernæmontanus. Of the 1,800, only sixteen are said to be original.

But the interesting point about these figures is that Gerard's knowledge of botany was not sufficient to guard him against the numerous pitfalls which their application to his descriptions presented, and the confusion which ensued exposed him to Johnson's charge that he endeavoured to perform therein more than he could well accomplish, which was partly through want of sufficient learning. It also transpires that Lobel was asked to correct his errors, but the assiduity with which Lobel complied with this request was such that Gerard stopped the process, and with bad grace accused him of having forgotten his English. Johnson tells us that Gerard had no great judgment in these figures, and "frequently put one for another, and, besides, there were many plants in those authors which he followed, which were not in Tabernæmontanus and divers in him which they wanted, yet he put them all together, and one for another, and oft times by this means so confounded all that none could possibly have set them right, unless they knew the occasion of these errors."

The cuts in Johnson's edition number, according to Pulteney, about 2,717, upwards of 700 of which are said to be new, but I have not compared the two editions. Pulteney says that Johnson procured the same cuts that Gerard borrowed, but Johnson himself, in his preface, tells us that he made use of "those wherewith the works of Dodonæus, Lobel, and Clusius were formerly printed." If so, they must have been lent by Plantin at Antwerp. I have compared a number in Johnson

with corresponding cuts in Plantin's issue of Lobel's "*Kruydtboeck*," 1581 (which is supposed to have contained all the figures in Plantin's collection at that time), and judge them to have been printed from the same blocks. Plantin's printed collection numbered 2,181, which leaves about 536 to be accounted for. Whether or not these were also borrowed of Plantin, who in the interval had doubtless collected new figures, I am unable to say. The frequency with which the large collections of figures were either borrowed or copied makes a comparison very perplexing, and the issue is not important enough to warrant the large amount of time which such an undertaking would necessarily entail. Suffice it to say that Johnson's edition contained the largest number of cuts of any herbal extant.

PARKINSON'S HERBAL.

The last of the old English herbalists was John Parkinson, born in 1567, and died in 1650 at the ripe old age of 83. Like Turner, Johnson, and Gerard, he had a garden of his own containing many rare plants. Parkinson was apothecary to James I, and in 1529, upon the publication of his "*Paradisus Terrestris*," dedicated to Queen Henrietta Maria, he was styled by Charles I "*Botanicus Regius Primarius*." The "*Paradisi in Sole Paradisus Terrestris: A Garden of all Sorts of Pleasant Flowers*," &c., was his first work. A second edition was published six years after the author's death in 1656, and a facsimile reprint of the first edition has appeared during the last few years—an honour which has not been shared by any of the herbals, and an indication of the esteem in which the curious old sixteenth-century book is held in modern times. The work, however, does not concern us. It is merely a book for the gardener or florist, and does not come within the meaning of the term "herbal."

Parkinson's herbal, upon which he spent the greater part of his life, is a massive folio volume with the title:—

"Theatrum Bo- | tanicum : | The Theater of Plants. | Or, | An Herball of | Large Extent : | Containing therein a more ample and | exact History and declaration of the Physicall Herbs | and Plants that are in other Authours, encreased by the accesse of | many hundreds of new, rare, and strange Plants. . . . Shewing withall the many errors, differences, and | oversights of sundry Authors that have formerly written of | them. . . . Distributed into sundry classes or Tribes, . . . with the chiefe notes of *Dr. Lobel*, *Dr. Bonham*, | and others inserted

therein. | Collected . . . by *John Parkinson* Apothecary of *London*, and the | *Kings Herbarist*. | And Published by the *Kings Majestyes especiall* priviledge. | *London*, | Printed by *Tho. Cotes*. 1640." |

The above is preceded by a fine copper-plate engraved frontispiece, with a shortened form of the title in the middle. On the left is a figure of Adam, and on the right, one of Solomon. There are also four other mythological figures, and at the bottom of the page is a portrait of the author. Following the title is Parkinson's address to the reader. Then comes the dedication to Charles I and the customary commendatory pieces in Latin and English. The rest of the work consists of 1,755 pages.

This is the largest of all the English herbals, the number of plants described exceeding those in Johnson by nearly 1,000, being almost double the number in Gerard's first edition. Altogether the descriptions approach 3,800. The title originally intended for the work was a "Physicall Garden of Simples," but Parkinson's incursions into the by-ways of botany, like those of his predecessors, were not easy or uneventful, and as time went on he changed the plan to comprehend a larger scheme. At the beginning of his preface he complains "that disastrous times, but much more wretched and perverse men have so farre prevailed against my intended purpose, and promise, in exhibiting this worke to the publicke view of all, that their extreame covetousnesse had well nigh deprived my country of the fruition." It was Parkinson's professed design, Pulteney tells us, "to make his work a *Materia Medica*; and if, in him, we meet with the qualities of plants estimated on Galenical principles, by the degrees of hot and cold, moist and dry, &c., it was the theory of the day, from which authors of higher eminence were not emancipated. He not only gives the opinions of the Greek and Roman physicians, but of the Arabians, and has translated from the moderns, and his contemporaries, whatever could illustrate his subject, and render it as perfect as the intelligence of the times would allow."

The ponderous volumes of Gerard and Parkinson have been described as the two main pillars of botany in England till the time of Ray. It is to be feared, however, that Gerard's work remained the more popular of the two on account of the superiority of his figures, but his learning and natural qualifications for the work do not appear to have equalled those of Parkinson, whose herbal was much more original. The papers of Lobel, which Parkinson purchased and incorporated into his work, have already been referred to under the name of that author. How accused Parkinson in rather bitter terms of making Lobel's observations his own,

without expressing adequate acknowledgment, but it was Pulteney's opinion that whatever may have been the case in particular instances, the attack on the whole was uncandid.

Parkinson's Illustrations.

The text of Parkinson's first work, "*Paradisus Terrestris*," does not concern us, as it partook of the nature of a gardening book rather than that of a herbal. But in one particular respect it shares an interest common to all the herbals of the period—namely, that of botanical illustration. The woodcut figures which illustrate the work, although occupying no important place in the history of the art, unless it be that which marks its decline, are worthy of consideration. By this time the old wooden cuts which had given these herbals an artistic interest of the highest importance were being rapidly superseded by engravings on metal. Our own country, compared with Germany, Italy, and the Netherlands, had added little to the general history of the herbal, and to the art of botanical illustration it had contributed less. Turner's, Lyte's, and Gerard's figures were almost all of German or Flemish origin, but in Parkinson's "*Paradisus*," although many were copied from Clusius and Lobel, the majority were probably original. All were cut afresh, and were the work of an English engraver. On this account they are worthy of attention, although from the artistic standpoint they are of no importance. The figures in the "*Theatrum*" were mostly copies of those in Johnson's edition of Gerard, but less in number by about 100. Like those in the earlier work, they were all newly cut.

CONCLUSION.

With the publication of Parkinson's "*Theatrum*" in 1640, the period of the old English herbal ended. The works of the well-known writers, Nicholas Culpeper and William Cole, published within the next twenty years, are not included. It may also be necessary to state why the writings of the great British botanists, Morison, Ray, Grew, and others, are not described. With regard to these latter it must be observed that they were botanists in the more scientific sense, rather than herbalists, and that by the time their books appeared, the science of botany had grown up to an independent position and was no longer a branch of medicine. After this period, the popularity of the herbal declined, and on account of the great revolution in botanical studies

the large number of herbals which have appeared since Parkinson's day are of little or no importance.

Concerning Culpeper and Cole, who were industrious exponents of astrological botany and the doctrine of signatures, little need be said. Their works only tend to bring the literature of herbals into disrepute. Astrological botany—a belief in the influence of the moon and stars upon plants—goes back to ancient times, and it is, perhaps, a measure of Culpeper's quality that he revived this absurd superstition when the learned herbals of the scholar physicians and botanists of the Renaissance had done so much to raise the herbal above such false and engrossing beliefs. According to the doctrine of signatures, many medicinal herbs indicated by some external characteristics the diseases for which they were remedies. With regard to this doctrine, it is perhaps only necessary to add that the late Dr. Paris regarded it as "the most absurd and preposterous hypothesis that ever disgraced the annals of medicine." It is not claimed, however, that the learned herbalists, whose works form the subject of the latter part of this paper, were entirely free from superstition. They were not, but with the doctrine of signatures and astrological botany they had little to do, and their works contain many definite refutations of various superstitions. Their works must be judged, not in the light of twentieth-century standards, but by a comparison with their contemporaries and predecessors.

For the loan of the old herbals exhibited when the abstract of this paper was read my thanks are due to Mr. Bernard Quaritch and the Master of the Society of Apothecaries. English works only form a short chapter in the general history of the herbal, and to those who desire a survey of the whole range of this fascinating literature during its best period the recent book by Mrs. Arber (Cambridge University Press)—the only modern English work on the subject—is recommended.